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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,204	09/08/2003	Hidetoshi Nojiri	03500.017148.	7504

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EXAMINER

GLEITZ, RYAN M

ART UNIT PAPER NUMBER

2852

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,204

Applicant(s)

NOJIRI, HIDETOSHI

Examiner

Ryan Gleitz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/08/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I in the reply filed on 8 February 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kolodziej (U.S. 6,585,344).

Kolodziej discloses a recording medium residual amount detecting device for detecting information concerning a residual amount or remaining number stacked of recording medium.

Figures 6 and 7 illustrate an external force applying means (702) that applies an external force to a recording medium group in a thickness direction thereof; and external force detector (704) that detects the external force applied to the recording medium group, wherein the external force detector (704) is disposed such that the recording medium group is set in a position between the external force applying means (702) and the external force detector (704). See col. 7, lines 1-17.

Regarding claim 2, the embodiment in figure 7 reads on an impact as external force applying means, and the embodiment in figure 6 reads on a voltage as external force applying means.

Regarding claim 3, the external force applying means and the external force detector are composed of a first electrode (602) capable of being in contact with a front surface of the recording medium group and a second electrode (604) capable of being in contact with a rear surface of the recording medium group, and wherein the recording medium residual amount detecting device further comprises voltage applying means that applies a voltage between the first electrode (602) and the second electrode (604). See col. 4, lines 44-66.

Regarding claim 4, in step 806 of the flow diagram shown in figure 8, the information concerning a residual amount of recording medium is detected by comparing a signal stored in advance in a storage circuit corresponding to a residual amount, with a signal detected by the external force detector. See. Col. 7, lines 32-43.

Regarding claim 6, step 810 generates a notification, which is a warning means that issues, when the remaining number of the recording medium is equal to or less than a predetermined value, a warning indicating that the remaining number is equal to or less than the predetermined value. See col. 7, lines 41-45.

Regarding claim 7, paper tray (302) is a recording medium stacking means for stacking a recording medium group.

Regarding claims 8-12, the notification is generated and sent to a user via a network as shown by figure 9, which inherently involves outputting information as electronic information to a display of a computer connected with the image forming apparatus. See col. 7, lines 44-47, and

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col. 7, line 57 - col. 8, line 9. If the printer has no pages left or has some number less than the number required by the requested print job, the notification is sent, which reads on irrespective of presence (not used up) or absence (used up) of the recording medium.

Regarding claim 13 and 14, the apparatus above also reads on executing a process of the detecting device.

Other Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mori et al. (JP 09-190119) disclose a recording medium detecting device including a vibrating device and vibrating detector.

Kwon (US 6,292,636) discloses a paper detecting apparatus with external force detector and applying means.

Contact Information

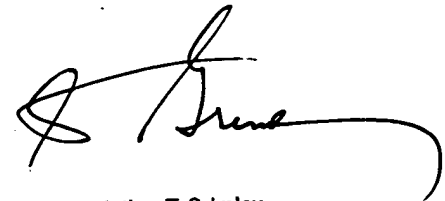
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rg

A handwritten signature in black ink, appearing to read 'A. Grimley', with a long horizontal flourish extending to the right.

Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800